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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/819,647 | 03/29/2001 | Yoshiki Onuma | 50353-571 | 3405 |
| 7590 | 10/24/2003 | | EXAMINER | |
| MCDERMOTT, WILL & EMERY 600 13th Street, N.W. Washington, DC 20005-3096 | | | NGUYEN, NAM V | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/819,647 | ONUMA ET AL. |
| | Examiner Nam V Nguyen | Art Unit 2635 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 March 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7 and 10-16 is/are rejected.

7) Claim(s) 8 and 9 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 29 March 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

The application of Onuma et al. for an "Electronic key system for vehicle" filed March 29, 2001 has been examined.

This application claims foreign priority based on the application 2000-100972 filed April 3, 2000 in Japan. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a) – (d), which papers have been placed of record in the file.

Claims 1-16 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 10-13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiji et al. (JP 11-036675) and in view of Griessbach (US# 5,844,495).

Referring to claims 1 and 13, Keiji et al. disclose an electronic key system and method for a vehicle comprising:

An electronic key having first ID (identification data), second ID, and third ID, said electronic key outputting the first ID, the second ID, and the third ID; and

An on-vehicle apparatus communicating with said electronic key by means of wireless communication said on-vehicle apparatus having fourth ID, fifth ID, and sixth ID, said on-vehicle apparatus permitting starting an engine of the vehicle when one of first and second conditions is achieved, the first condition including a condition that the second ID outputted from said electronic key corresponds with the fifth ID, the second condition including a condition that the first ID outputted from said electronic key corresponds with the fourth ID and the third ID outputted from said electronic key corresponds with the sixth ID (paragraph 0015 to 0017; paragraph 0025 to 0027; see Drawings 1 and 5).

However, Keiji et al. did not explicitly disclose that the third ID which is shorter in data length than the second ID and the sixth ID which is shorter in data length than the fifth ID.

In the same field of endeavor of electronic key for operating motor vehicle, Griessbach teach that a second partial code signal which is contained in a code memory of S and in a code control unit V (column 1 line 52 to column 2 line 50; see Figures 1 and 2) in order to release a drive control unit M.

One of ordinary skilled in the art recognizes using a partial code signal which is contained in a code memory of an electronic key of Griessbach in plurality of ID codes in memory of the electronic key system of Keiji et al. because Keiji et al. suggest it is desired to provide that the memory of the electronic keys contains plurality of codes that are separate from each other to operate vehicle system (paragraph 0016) and Griessbach teach that the code memory is disposed in a portable ignition key contains plurality of partial codes in order to have

a successful control of operation of motor vehicle (column 1 line 52 to column 2 line 50; see Figures 1 and 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made using a partial code signal which is contained in a code memory of an electronic key of Griessbach in plurality of ID codes in memory of the electronic key system of Keiji et al. with the motivation for doing so would have been to provide plurality of identification codes in a memory of an electronic key in order to increase reliable and safe electronic key system for vehicle.

Referring to claim 2, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 1, Keiji et al. disclose wherein said on-vehicle apparatus permits unlocking a vehicle door when the first ID corresponds with the fourth ID (paragraph 0025; see Drawing 5).

Referring to claim 3, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 1, Keiji et al. disclose wherein said on-vehicle apparatus requests said electronic key to output the first ID when an operator carrying said electronic key executes an operation for opening a vehicle door from an outside (i.e. a user approaches) of the vehicle (paragraph 0025; see Drawing 5).

Referring to claim 4, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 3, Keiji et al. disclose wherein said electronic key outputs the first ID only when said on-vehicle apparatus requests said electronic key to output ID for opening the vehicular door (paragraph 0025; see Drawing 5).

Referring to claim 5, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 1, Keiji et al. disclose wherein said on-vehicle apparatus requests said electronic key to output the first ID when an operator carrying said electronic key approaches the vehicle to open the vehicular door (paragraph 0025; see Drawing 5).

Referring to claim 6, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 1, Keiji et al. disclose wherein said on-vehicle apparatus requests said electronic key to output the second ID when an operator carrying said electronic key executes an operation for starting the engine (paragraph 0027; see Drawing 5).

Referring to claim 7, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 6, Keiji et al. disclose wherein said electronic key outputs the second ID only when said on-vehicle apparatus requests said electronic key to output ID for starting the engine (paragraph 0027; see Drawing 5).

Referring to claim 10, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 1, Keiji et al. disclose wherein said the vehicular door has a key cylinder and is unlocked by inserting a key into the key cylinder and by turning the key, said on-vehicle apparatus permitting starting the engine when the vehicle door is unlocked by turning the key inserted in the key cylinder and when the second ID outputted from said electronic key corresponds with the fifth ID (paragraph 0026 to paragraph 0030; see Drawings 5 and 6).

Referring to claim 11, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 1, Keiji et al. disclose wherein said on-vehicle apparatus comprises an antenna through which said on-vehicle apparatus communicates with said electronic key located within a predetermined area outside of the vehicle (paragraph 0025; see Drawing 5).

Referring to claims 12 and 15-16, Keiji et al. in view of Griessbach disclose an electronic key system as claimed in claim 1, Griessbach discloses wherein said the third ID (i.e. an alternating code or second partial code signal) is part of the second ID (i.e. code memory), and the sixth ID is a part of the fifth ID (i.e. codes in the code control unit) (column 1 line 52 to column 2 line 50; see Figures 1 and 2).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keiji et al. (JP 11-036675) in view of Griessbach (US# 5,844,495) as applied to claim 13, and in further view of Katayama et al. (US# 5,708,308).

Referring to claim 14, Keiji et al. in view of Griessbach disclose the method as claimed in claim 13, however, Keiji et al. in view of Griessbach did not explicitly disclose that wherein said requesting the electronic key to output the second ID is executed when an operation for starting the engine is executed without checking the first ID.

In the same field of endeavor of electronic key for operating motor vehicle, Katayama et al. teach that the electronic key to output the ID code is executed when an operation for starting

the engine is executed without checking any other ID code (column 6 lines 3 to 41; see Figures 1 and 2) in order to protect against unauthorized operation of vehicle.

One of ordinary skilled in the art recognizes using an identification code to start an engine of vehicle without checking any other identification code of Katayama et al. in plurality of ID codes in memory of the electronic key system of Keiji et al. in view of Griessbach because Keiji et al. suggest it is desired to provide that the memory of the electronic keys contains a second identification code to operate an engine starting (paragraph 0016) and Katayama et al. teach that an electronic key has an identification code to enable or disable an engine start in order to authorized user of the motor vehicle to start engine (column 6 lines 3 to 41; Figures 1 and 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made using an identification code to start an engine of vehicle without checking any other identification code of Katayama et al. in plurality of ID codes in memory of the electronic key system of Keiji et al. in view of Griessbach with the motivation for doing so would have been to provide an identification code in a memory of an electronic key to start engine in order to increase flexible and reliable electronic key system for user.

Allowable Subject Matter

Claims 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 8, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations wherein said on-vehicle apparatus requests said electronic key to output the third ID when the first ID corresponds with the fourth ID and when an operator carrying said electronic key executes an operation for starting the engine.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Matsubara et al. (US# 6,567,012) disclose a remote control device.

Leshets et al. (US# 6,031,466) disclose a method for reducing power consumption in wait-mode.

Okubo (US# 5,422,634) discloses a locking system using a key including an IC memory.

Weishaupt et al. (US# 4,347,545) disclose a burglarproofing device for automotive vehicles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 703-305-3867. The examiner can normally be reached on Mon-Fri, 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nam Nguyen
October 19, 2003

Nam

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Michael Horabik